



US 20210142318A1

(19) **United States**(12) **Patent Application Publication**
Qian et al.(10) **Pub. No.: US 2021/0142318 A1**(43) **Pub. Date: May 13, 2021**(54) **MAPPING SYSTEM AND CORRESPONDING METHOD TO REALIZE DIGITAL ASSETS ON THE MAPPING CHAIN BASED ON DISTRIBUTED TECHNOLOGY**(71) Applicant: **SHANGHAI FENFU INFORMATION TECHNOLOGY CO., LTD.**, Shanghai (CN)(72) Inventors: **Dejun Qian**, Shanghai (CN); **Zhaojun He**, Shanghai (CN); **Guochang Xu**, Shanghai (CN); **Bin Jiang**, Shanghai (CN); **Xi Luo**, Shanghai (CN)(73) Assignee: **SHANGHAI FENFU INFORMATION TECHNOLOGY CO., LTD.**, Shanghai (CN)(21) Appl. No.: **17/047,818**(22) PCT Filed: **Jul. 19, 2018**(86) PCT No.: **PCT/CN2018/096215**

§ 371 (c)(1),

(2) Date: **Oct. 15, 2020**(30) **Foreign Application Priority Data**

Apr. 16, 2018 (CN) 201810339305.3

Publication Classification(51) **Int. Cl.****G06Q 20/36** (2006.01)**G06Q 20/38** (2006.01)**H04L 9/08** (2006.01)**G06Q 20/06** (2006.01)(52) **U.S. Cl.**CPC **G06Q 20/3674** (2013.01); **G06Q 20/0658**(2013.01); **H04L 9/0861** (2013.01); **G06Q****20/3829** (2013.01)

(57)

ABSTRACT

A mapping system and corresponding method to realize digital assets on mapping chain based on distribute technology is provided, the system includes a mapping chain and at least two public chains, the mapping chain generates a private key sharding based on distribute technology and completes the decentralized custody of each private key sharing, and by locking in and locking out the digital assets in at least two public chains, to complete cross-chain communication between at least the two public chains. Using the mapping system and corresponding method to realize digital assets on mapping chain based on distribute technology, the mapping methods that supports different digital assets enables different currencies to be mapped to a mapping chain in a more innovative way thus these tokens can realize multi-currency smart contract on the same chain and become the infrastructure of crypto finance.

